ANOTHER MARVELLOUS TRIUMPH OF MODERN SURGERY!

An Aluminum Jaw Grafted on in Place of a Jaw-bone the Surgeons Had Removed.

One of the most remarkable operations of modern surgery was performed recently upon William McConnell in the Presbyterian Hospital at Pittsburg, when the surgeons succeeded in taking out half of his jaw bone and substituting in its place a piece of aluminum.

McConnell, who lived near Claysville, on the Baltimore & Ohio Railroad, suffered terribly some years ago from a decaying tooth in the left side of his lower jaw. He went to a local dentist, who said he could relieve the pain by a certain preparation. This was applied, and McConnell was at once relieved of his pain.

Later, an eruption appeared on the gum of the left jaw and spread for several inches. It increased steadily, and caused McConnell intense pain and great misery.

Finally his physician sent him to the Presbyterian Hospital. There it was found he was suffering from cancer, which had involved the jaw to a fearful extent. The only chance of saving his life lay in an operation by which almost the entire left side of his jaw should be removed. It was a dangerous one, but the patient submitted to it as his only hope.

An incision was made on the left side of the face along the jaw bone. The flesh was cut away until the diseased bone was reached, which was then carefully explored in both directions. The wound was held open with hooks, and the sound flesh protected by antiseptic padding from contact with the cancerous growth.

The whole of the cancer, the diseased bone and adjoining sound portions were exposed. Fortunately the growth, though of great extent, did not reach as far as the ligatures connecting the jaw with the skull. The mechanism for removing it is therefore left intact.

A fine saw was introduced, the jaw was cut through in two places and a great piece of diseased bone removed, together with the cancer and some teeth. The piece of bone taken out was four inches in length. The incision was made so as to [illegible] only the sound bone and tissue surrounding the cavity.

[illegible] piece of aluminum beaten into the exact shape of the jaw [illegible] and the flesh placed over it. The edges [illegible] cut were sewn together.

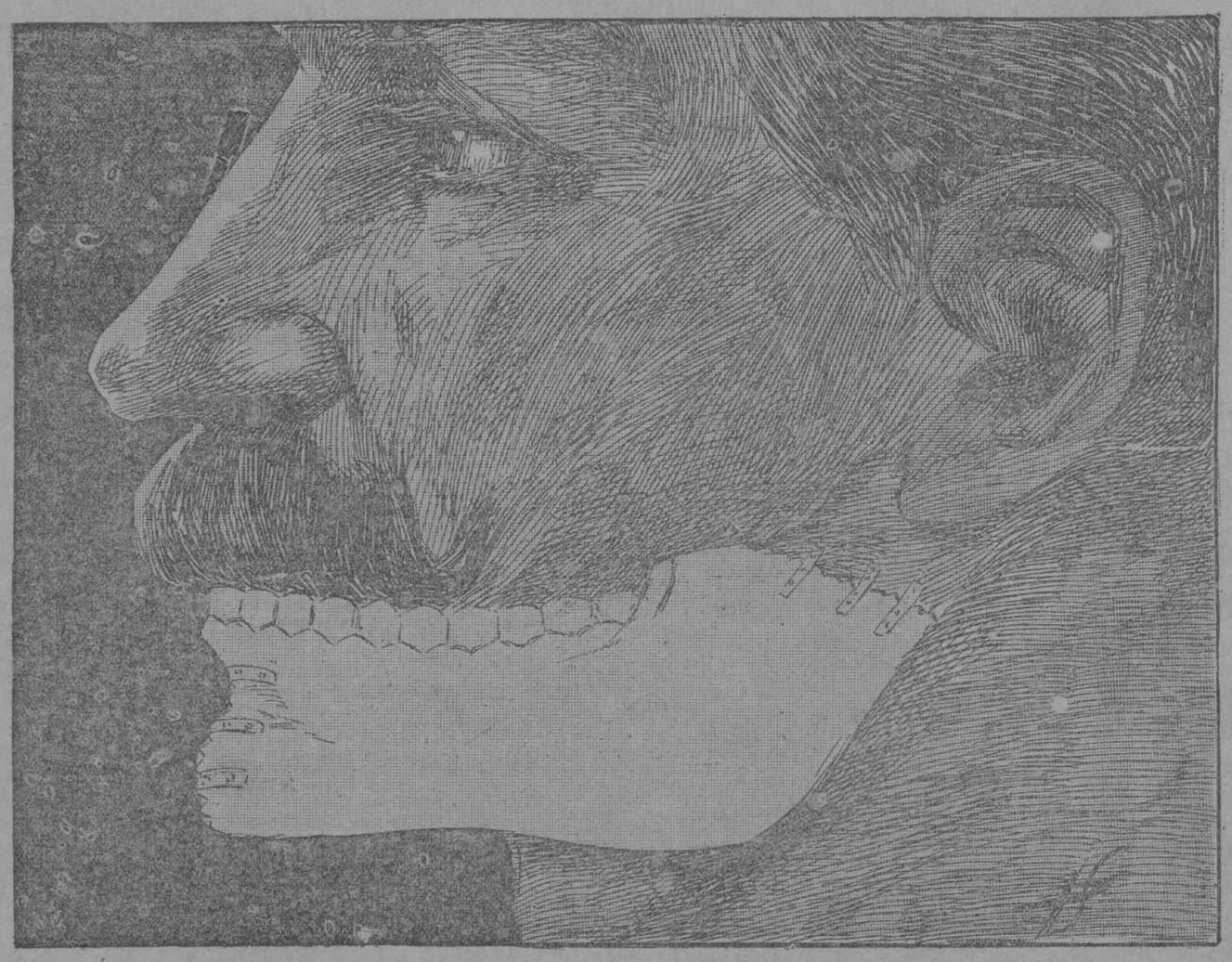
McConnell's head was tightly bandaged up and he was not allowed for two weeks to use his jaws. All food was given to him in a liquid form.

He now appears to be on the way to complete recovery. He is able to use his jaw to speak and can take solid food in a rather soft form. The strength of the facial muscles on the [illegible] side is returning. He is delighted with the result of the operation.

The surgeons tell him that he will have the full use of his left jaw and that the aluminum bone will serve the place of the old one even in eating. He will even be able to have false teeth fitted to the aluminum jaw in a few days.

This case calls attention to the many marvellous feats of modern surgery in removing important parts of the body. To such a development have surgeons now carried their science that they can deprive a man of three-fourths of his body and still leave him alive. Before many years they will doubtless be able to exhibit as a product of their skill a human being more simple in construction than a worm.

There is no organ in the body which cannot be touched by the surgeon, and only one that cannot be wholly or in part removed—that is the heart. To touch either that or the brain meant death a few years ago, but now the brain is freely cut away in certain conditions of disease, and the heart is tapped. [illegible] surgeon in this city enumerated for the benefit of a Sunday Journal reporter all the organs that can be removed without killing a man or depriving him of any of the five senses of sight, hearing, taste, smell and touch.



He began with the brain, the seat of thought and all voluntary action. In no department of surgery have greater strides been made than in the treatment of this organ. Tumors are of frequent occurrence here and are certain to cause insanity and death unless treated surgically.

The cortex, or white matter which covers the brain, can now be operated on with comparative ease. Any part of it can be removed and very large portions have in fact been taken away. Some times this result has been brought about by accidental injuries.

Beneath the white matter is the gray, in which are situated the nerve centres and the seat of consciousness and volition.

The surgeon must touch this part of the brain with a sparing hand. He can only remove inconsiderable portions. The nerve centres must be avoided, or death will immediately result.

The great essential in the surgical treatment of the brain is gentleness. While a blow inflicting a comparatively slight injury will cause death, the surgeon can shave away with his delicate instruments a much larger part than that affected by the blow without producing fatal results.

The skull, like the whole skeleton,, is subject to unlimited surgical modification. There are no parts of it which cannot be removed, as long as the nerves which issue through it from the brain are untouched. A piece of skull as large as a silver dollar may be trephined.

Of other parts of the head that are subject to extirpation may be mentioned the ears, the eyelids, the cheek bones, the nasal bones and the jaws. In cases of necrosis it is common to remove large portions of these bones. False ears and noses, of most natural appearance and quite comfortable to wear, are supplied..

The mouth and adjacent parts are subject to many operations. The tongue may be removed and also the uvula, or central portion of the palate. In either of these cases the sense of taste would remain, though it would be greatly diminished by the loss of the tongue.

Descending from the head we come to the complicated and beautiful organs contained within the neck. These are peculiarly subject to cancers and other malignant growths, which are the more deadly in this region because they not only cause a diseased local condition, but interrupt or poison the means of communication with the stomach or lungs.

The two tonsils situated at the entrance to the throat which have an effect in the modification of the voice are frequently removed. There is also a third or pharyngeal tonsil which it is some times necessary to cut out.

The larynx, in which are situated the cords, by the vibration of which the voice is produced, has been completely extirpated by bold American surgeons. An artificial larynx has been inserted in its place.

Portions of the trachea, the tube leading from the larynx to the lungs, can also be dispensed with. Situated in front of the larynx is the thyroid gland, the excision of which is now practised in goitre.

The surgery of the lungs is now in a somewhat experimental stage. It is certain that a man having lost a greater part of one lung can live, and it is now sought to check the growth of disease in this organ by the knife.

The esophagus or gullet is subject to great surgical modification, and it is possible for a man to dispense with it and receive nourishment through an artificial orifice in his stomach.

The whole of the stomach may be removed or put out of use. In that case only liquid nourishment can be taken, and not through the mouth.

A common operation is to cut out a portion of the pylorus or lower end of the stomach.

Both the large and small intestines may be greatly reduced in extent. There are many surgeons who have removed half of the small intestines. The colon, the principal part of the large intestines, is occasionally brought out through an artificial orifice in the left lumbar region. It is hardly necessary to mention the removal of the vermiform appendage, that useless addition to the colon.

Either of the lobes of the liver may be removed, but with somewhat unpleasant results. The extirpation of the hepatic duct which conveys bile from the liver to the duodenum, makes the digestion of fats impossible.

Attempts have been made to connect artificially the hepatic duct and the common bile duct after the removal of the gall bladder, which intervenes between them. The spleen, the function of which is unknown, can easily be spared.

The surgeon can relieve a man of either kidney or of part of the bladder. The latter has been wholly removed without causing death, and its place supplied artificially. Even these are not all of the modifications which modern surgery can make in the internal organization of man; but enough has been said to show that it can pare him down to a very simple structure.

With the skeleton surgery can do almost anything. All the extremities can be taken off and large parts of the skull, backbone, pelvis and other important bones. As long as the periosteum, or covering, is left, the bone will reform. Broken vertebrae may be removed or set. Injury to the spinal cord is the cause of death where the backbone is concerned. Surgery cannot yet mend or replace this, but even that is not to be regarded as impossible.

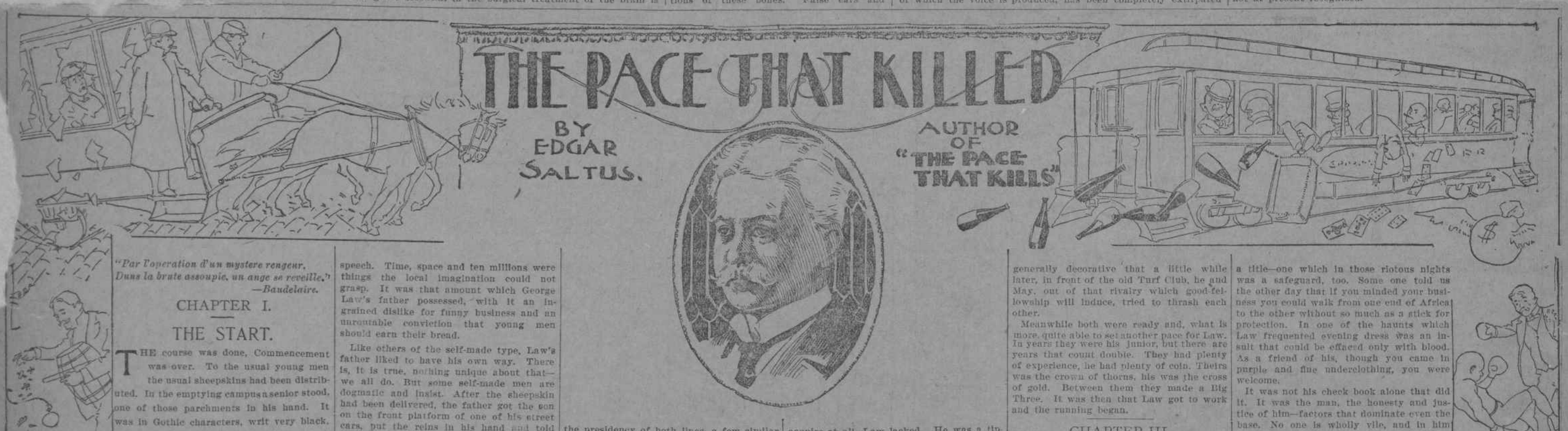
Experiments are frequently made of mending diseased human nerves with healthy nerve tissues from animals. Although they have not yet had any definite results, many surgeons believe that success is in sight. If this view be correct, it is also reasonable to look forward to the mending of the spinal cord with that of a lower animal.

The replacing of human eyes by those of animals is another attractive field of experiment.

Certain portions of tendons can be removed, without destroying their usefulness. As long as the sheath is not destroyed, tissue which form within it, connect the severed ends of the tendons and restore them to working order.

A deeper knowledge of the reformative processes of the human body will doubtless enable surgeons to perform many operations which are not at present attempted. It is probable that many organs have within them a source of regrowth which is not at present recognized.

Bones, Limbs and Internal Organs That May Now Be Safely Removed from the Body.



"Par l'operation d'un mystere rongeur,
Dans la brute assoupie, un ange se reveille."
—Baudelaire.

CHAPTER I.

THE START.

THE course was done, Commencement was over. To the usual young men the usual sheepskins had been distributed. In the emptying campus a senior stood, one of those parchments in his hand. It was in Gothic characters, writ very black, decorated with a splash of red wax, and it attested at length and in Latin that George Law had been graduated from Columbia College cum laude—with praise.

Of his people not a word. The fact that his father had run the Presidential race for the White House and lost it was unnoticed. The erection of High Bridge, the organization of the East River ferries, the construction of the Eighth and Ninth avenue car lines—none of these things, due to him, were mentioned. It was of the son alone the document told, yet in the telling absence of information was complete. As he read the variegated and archaic recitals they induced the blank emotion of surprise. It seemed curious to him that emptiness could be so heavy and heaviness so light.

But at least the course was over, and as he pocketed that sheepskin he nodded as who should say, "The world is mine."

It wasn't. But that portion nicknamed abroad the half world was—not in fee, indeed, just then, but in the beckonings of anticipation.

Michelet said he would have liked to have seen Cæsar setting out in the rain to conquer the earth. A spectacle far more up to date would have been the sight of George Law, the day after the delivery of that sheepskin, starting out in a street car to conquer New York. For that ambition, laudable or the reverse as you like, was his. To achieve it he needed several attributes which he lacked, but the grit was in him, the sinew, too, and underlying both the patience to wait till he got there.

That was thirty-two years and four weeks ago. Were John Jacob Astor alive to-day, and were his property of the same value now as then, he would be a pleasant and comfortable acquaintance, no doubt, but not a hero to his valet. At that time to a man who had $500,000 hats were off. Men with a million were infrequent as good prose. To-day ten times that quantity is just about enough to entertain on; a penny less and you are pinched. In those days a sum such as that was tossed into the mythical proportions of a figure of speech. Time, space and ten millions were things the local imagination could not grasp. It was that amount which George Law's father possessed, with it an ingrained dislike for funny business and an unreasonable conviction that young men should earn their bread.

Like others of the self-made type, Law's father liked to have his own way. There is, it is true, nothing unique about that—we all do. But some self-made men are dogmatic and insist. After the sheepskin had been delivered, the father got the son on the front platform of one of his street cars, put the reins in his hand and told him to drive up and down Eighth avenue.

Law obeyed. Eighth avenue is hideous now; fancy it then! It was Dantesque—a stretch of cheap horrors. At twenty-one you could not drive up and down there because you had to and keep free of mental smallpox. Law caught it. It pitted him all about the base of the brain. When he died a fortnight ago the marks were still there.

Among his classmates the rumor of that equipage spread. In the Autumn, when the majority of them were back in town, a lively little party was made that laid in wait for that car, boarded it, shook the windows with "Old Dog Tray," bellowed "Gaudeamus" to raise the roof, made collegiate eyes at the ladies, and carried on with Law such a running fire of jokes that all of a sudden—whoop-la! the car was off the track, driven lickety-split over the cobbles, straight to a saloon, and Eighth avenue had the joy of seeing a driver treating his passengers, treating the barkeeper, treating the house.

The press then was very sedate. At infrequent intervals the Sunday Mercury put a private individual into small type, but there were no scoops in those days—none of those agile reportorial processes by which a man awakes to find himself infamous. The story was not printed. The rumor of it did not reach Law's father. A little later George was promoted from front platform to back, and subsequently it became legendary that in change for the five cents of any poor man whose face he liked he would return a dollar. The car which he conducted, like the car which he drove, was, as you see, unique, and, as you may believe, it was popular, too.

"Glad to see you on board," he would say to a chap he had never encountered before. "Here, have a cigar and keep the fare for your girl."

Then followed chapters from Charles Lever adapted and set in the slums. It was in the flabbergastment of the road's clientele that he learned the business and ascended from both platforms through office work to the superintendent's chair.

It was at this juncture that it occurred to his father to leave the planet and his millions behind. George got eight of them, the presidency of both lines, a few similar perquisites, and, barring the drudgery of signing receipts for coin, entire leisure to raise the deuce.

CHAPTER II.

THE RUNNING.

WRIGHT SANFORD was then very much in view. In rivalry of that famous New York prodigal, Bunby Bradford, he had run through two fortunes, yearned to run through a third, and would have had it not been in trust. Of excellent family, he was one of the few men that Law was destined to meet who preferred spending his own money to having money spent on him. A trifle gray, without an idea in his head or an enemy in the world, his amiability was perfect, and though not a society man, to use that beastly term in its technical sense, and though in every way a man's man, there was an assortment of the nicest girls in love with him.

A dinner which he had previously given to toughs and detectives made him solid in sporting circles. His tastes and wealth had affiliated him with the foremost people on the turf; through his standing and repute he was on the governing committee of nearly all the good clubs; he was a delight to his tailor, a marvel to his cook, a man who showed himself now and again at the Patriarchs', invariably at the races, sometimes at a prize fight, more often in a green-room; in short, a man all about town who dined with the best, supped with the worst, slept no one knew when, lived no one knew how, and at both ends burned the candle.

It was he who set the pace for Law. But that it was too rapid, nor yet that it was that it was too rapid, nor yet that it was not rapid enough, nor was it that Law had been running a car on Eighth avenue while Sanford had been tooling a coach on Fifth. It was the smallpox. Sanford was a gentleman by birth and breeding. Law wasn't. That education in little things which you must begin in the nursery, complete in immediate drawing rooms or never acquire at all, Law lacked. He was a tip-top chap, evangelical in simplicity, honest as the dictionary, and generous as a novelist dowering a heroine. In not one of these respects was there anything the matter with him. But his education in those little things which in certain walks are the biggest, left enormously to be desired.

On the turf, at the green baize of the roulette table, in the side scenes of existence, wherever all sorts and conditions of men may congregate, Sanford loved him. But in the proscenium of life he had no use for him at all.

The difference Law detected, but not the reason of it. There was an effect which was patent and a cause which was obscure. He loved the pace that had been set, loved Sanford, loved everything and everybody, and the fact that the love in its plenitude was not returned upset him. He turned tail from the dazzling precincts in which Sanford throned and made straight for the "Silver Grill" or whatever may have been the name of its unholy predecessor, where he promptly ran up against Fred May, Frank Ellison and a few others less historic.

At that time Fred May was handsome enough to have been accounted a wanderer from some larger sphere than ours. His good looks were not pagan, they were not those of the Occident or of the Orient, they were unique and his own. In spite of them, or perhaps on their account, but a little before he had been thrown over by a sumptuous young woman who now figures in the British peerage. That had upset him. Incidentally he had thrashed a few people, tripped over the skirts of one or two fairies, gone abroad and returned in much of the luridness of melodrama, and was altogether actively occupied in putting a beautiful future behind him.

In that effort Frank Ellison was earnestly collaborating. A man of few words in the morning, after dinner—before it even—he would become quite expansive and therewith display the mimicry of a clown, and a clown's agility, too—neither of which is to be sneezed at. He, too, had tripped over a few skirts, thrashed one or two people and was tottering on a career so generally decorative that a little while later, in front of the old Turf Club, he and May, out of that rivalry which good-fellowship will induce, tried to thrash each other.

Meanwhile both were ready and, what is more, quite able to set another pace for Law. In years they were his junior, but there are years that count double. They had plenty of experience, he had plenty of coin. Theirs was the crown of thorns, his was the cross of gold. Between them they made a Big Three. It was then that Law got to work and the running began.

CHAPTER III.

THE FINISH.

IT would take the forty-four pages of to-day's issue to give in their entirety, with the luxury of ornate detail which they deserve, the chronicles of Law's subsequent career. May and Ellison fared with him as he had with Sanford—the plenitude of the affection which they demonstrated ceased presently to have any return.

He wanted wilder comrades, rougher mates, men to whom manicures did not exist and to whom valeting was an embarrassment. May and Ellison were far too ornamental for his riots. The boys did not take to them and the women did. It was not swells, on or off their uppers, that he wanted any more. It was chips from the old block he was after—men who didn't care a hang how their faces looked in the morning or whether they had any faces at all; men who had to stand up and drink until they had to take it sitting and then drank till they toppled over; men who could keep it up without Turkish baths, the flummery of massage, day in, night out, till they fell by the way, and good luck to them.

That was what George Law wanted, and that is what he got; not the orgies of imperial Rome which Petronius has described so alertly and so well, not the Heliogobalian debauches of her decadence. He was too plain for the hybrid, too simple for the complex. The festoons and ristragals with which the European adorns the cardinal sins were unknown to him, even pictorially. With that little marquis whose name is Vice he was totally unacquainted. It was din he fancied—the uproar of a collegian's racket. He had set out to astonish New York, and it was faro dens, there was slugging, but praise was a passers that acclaimed him.

After all, why not, if he liked it? He throned there, semi-divine. There was no laughing behind his back. For a sneer there was slugging; but praise was a passport. To be a friend of George Law was a title—one which in those riotous nights was a safeguard, too. Some one told us the other day that if you minded your business you could walk from one end of Africa to the other without so much as a stick for protection. In one of the haunts which Law frequented evening dress was an insult that could be effaced only with blood. As a friend of his, though you came in purple and fine underclothing, you were welcome.

It was not his check book alone that did it. It was the man, the honesty and justice of him—factors that dominate even the base. No one is wholly vile, and in him those who stood about could see qualities they may have once had, lost, and perhaps regretted, but which coerced the dumbest of them still.

Then, too, his prodigality, which was the only un-American trait about him, astounded. In those days he never tired of "setting up," never tired of lending. A thousand for drink, another in loans, was an every night occurrence. He would take in the Tenderloin, open wine for everybody, hand out money right and left, strew whatever shop he was in with bottles and bills and leave it for another. Seven or eight years ago he took a lot of toughs to Saratoga and blew them off to a jewelry store. At faro he threw away enough to buy a principality. He drank enough to poison a dozen gladiators. Whatever he did was excessive.

Long and far and fast he ran, faster and even faster, straight ahead, determined to get there, though just where he did not know until he pulled up short, and then he did know.

It was a girl that stopped him—Miss Alga Smith. It was the finish, and it was time. He had outrun the course, distanced every one, and when at last outwearied, but not outrun, he dropped on his knees, it was to that young woman.

Less than two years ago Miss Smith became Mrs. Law. For months that were shorter than nights had been, he sat with her, wondering at himself, wondering at her, but grateful and gracious, striving with the present to banish the past. "In the deadened brute an angel awakes," said Baudelaire, who omitted to add, "But only when it is a woman that arouses."

Just as in a fairy tale, for a year and a day the progress of that mystery continued. Law was transformed. From his face the mottle of drink had gone, from his throat its parch, from his life the thugs; he had vacated their lairs, forgotten their names. But the pace he had gone was the pace that kills. To the angel that awaked another was sent. A fortnight ago it reached him.

"Whoso is without sin," said the Christ, "may throw the first stone."

Requiescat in pace!

EDGAR SALTUS.